

- » Exploring drone piloting
- » Looking at how drones work
- » Shopping for a drone
- » Considering warranties and insurance

Chapter **1**

Finding Your Place in the Sky

As someone who loves nature photography, my purchase of a drone provided a natural extension of seeing the world around me. I remember nervously taking off for the first time, rising into the sky, and seeing the world from a completely different point of view. “I’m flying!” I thought. And that was it; I was hooked!

That first drone flight led to more drone flights, shooting photos and video in many different locations (of course I take my drone on vacation!). Those flights led to a new drone, and then Federal Aviation Administration (FAA) certification, and then another drone, and then people starting to ask, “Could you take some photos of our house that’s under construction?” and so forth.

Most people sort of fall into a drone piloting career. You start out with a hobby, and the more your hobby grows, the more you may start to think, “Maybe drone piloting could be a career for me.” Whether you’re a committed hobbyist or considering expanding your horizons, this book covers all the essential aspects of drone piloting. From choosing a drone, learning to fly it, studying for the FAA certification exam, and understanding flight rules and safety to pursuing a drone piloting career, you can explore everything you need to know to find your place in the sky.

In this first chapter, you get an overview of drone piloting as both a hobby and a profession. You also delve into how drones work and what you need to know about shopping for and buying a new drone.

Exploring Drone Piloting

As is true of most popular technology, drones, or Unmanned Aircraft Systems (UAS), have changed a lot in recent years. Frankly, drones are really good these days. They fly well, have a lot of built-in technology rich with safety features, and their cameras are fantastic. All kinds of drones are designed for different industries and with different purposes in mind. You can buy a drone that will actually fly and take photos and video for under \$50. Or, you can spend tens of thousands of dollars for a wide variety of sophisticated drone equipment. The sky is truly the limit, and the drone industry is vast and complex.

Piloting as a hobby

Years ago, my wife said, “You like photography; why not get a drone?” Honestly, I didn’t think much of it at the time. It seemed that every extra dollar always went to some kind of camera or lens for photography at ground level. In fact, I even had a water camera to get some great snorkeling shots. I just didn’t think that much about drones.

But as time went on, I discovered that many drones have very good cameras, and the angles I could capture could give me an entirely new look at the world. So I bought an inexpensive drone and played around. And it was fun. Something about the experience of flying is thrilling. Later, I purchased a prosumer-level drone (a cross between a professional- and consumer-level drone) and started getting serious about capturing great photos and videos. I even took this drone on vacation and shot the details of a coastline cliff. I remember saying to myself, “You would have never captured this footage without the drone.”



TIP

My point is that I started out at the hobby level for fun. The odds are good that you started in the same place or are about to start there. For many people, though, this hobby tends to lead to professional considerations.

Piloting as a profession

For me, the turn from hobbyist to professional work began with a simple conversation with a friend who is a building contractor. He said, “You know, it would be

great to have some aerial footage of some of my building projects. I could really use those on my website and social media.” That conversation moved me in the direction of taking a hobby to a more professional level. Today, I shoot content for real estate agents, contractors, landscape designers, and a host of individuals who need aerial footage of personal property or events. I enjoy photography, so I stay in that realm with my drone.

However, your story may be different. You may be interested in piloting a drone in a completely different career path. Or you may already work in an industry that uses drones, so it’s natural to think, “If I could pilot in my existing industry, I could advance my career!” That’s not a bad thought.



In fact, drones are used by many different industries (see Figure 1-1), and many drones are even designed for specific industries as well. Here are just a few examples of industries utilizing drone technology today:

- » **Construction:** All kinds of construction projects use drones to get aerial views — from homes, commercial buildings, roads, bridges, and much more.
- » **Real estate and marketing:** Drones are commonly used to shoot aerial content for real estate and related marketing needs.
- » **Delivery:** There is a growing trend and many new trial programs for using drones in package delivery and fulfilling e-commerce orders.
- » **Law enforcement and public safety:** Drones are becoming commonplace in law enforcement, traffic safety, and search and rescue.
- » **Agriculture:** Specific types of drones can be used for all phases of agricultural management.
- » **Security:** Security and surveillance operations often use drones.
- » **Film:** The commercial film industry uses drones and employs them in almost all movies filmed today. Social media influencers also use them frequently in content development.

Note: In case you’re curious, the industry that uses drones the most is real estate. Customers basically expect aerial views of houses, neighborhoods, and properties, so drone pilots are frequently employed for real estate shoots.



If you want to know more details about some specific kinds of drones that are used in specific industries, check out Chapter 19 for some examples.



Andrey Popov/Adobe Stock Photos



Shutter2U/Adobe Stock Photos



kinwun/Adobe Stock Photos

FIGURE 1-1:
Drones are used
in many different
industries.

Should you become a remote pilot?

If you're a drone hobbyist, you may reach that point where you wonder, "Should I become a professional remote pilot?" Of course, only you can answer that question, but before you ever begin the process of moving toward professional piloting, here are a few things to consider:

- » **Do you see opportunities?** As you think about professional drone piloting, do you see opportunities near you? Do you already know some people who would hire you for some projects? Do you work in an industry that uses drones and do you see a possibility of career advancement?
- » **Do you like working with people?** Here's a reality: You may enjoy flying your drone for fun and personal enjoyment, but flying professionally means you'll fly missions for someone else. That in turn means that you'll need to make other people happy with your work and fly missions that adhere to a set of goals defined by your customer. Does working under these conditions sound enjoyable to you?
- » **Are you willing to study?** In a nutshell, you must have an FAA Part 107 license to do virtually anything at all commercially. Are you willing to study and learn all the rules and regulations that the FAA expects you to know?

Along with the preceding questions, it's also important to take a hard look at yourself. Effective and safe drone pilots share some common characteristics. Do these sound like you?

- » **Drone pilots are lifelong learners.** Effective drone pilots are always learning something new. The drone industry is about technology, and technology is always changing. Do you enjoy learning and reading about new drone technology, features, and related issues? Do you enjoy applying that new knowledge and putting it to work?
- » **Drone pilots are methodical.** Safe drone pilots always think about safety and use checklists, employ effective methods of organization, and keep their drones in tip-top shape. Are you methodical in your thinking and your actions?
- » **Drone pilots like to plan.** Good drone pilots carefully think through their missions, make notes, and execute plans. Do you like making plans, or are you more impulsive?
- » **Drone pilots remain calm.** As a professional drone pilot, you may have to work with a frustrating client, deal with a frustrating mission, or grapple with things that go wrong during a mission. Good drone pilots remain calm because they know emotions can impact the safety of any mission.
- » **Drone pilots have good communication skills.** Drone pilots may have to communicate with a wide variety of people, even during missions. Are you a clear and concise communicator?
- » **Drone pilots pay attention to detail.** A common aviation term for drone piloting is *situational awareness*. This means that as a pilot, you're paying attention not only to your drone but also to the mission parameters and everything else that's happening in the area you are flying.
- » **Drone pilots are technically proficient.** Safe and effective drone pilots are very good at maneuvering the aircraft and using the remote control (RC). You become technically proficient with a lot of practice. Do you like to fly a lot and constantly work to improve your skills?

Whether you wind up evolving from a hobbyist to a professional drone pilot comes down to your goals, skills, and drive. I would say the odds are pretty good that you're ready to start moving in the professional direction — after all, you're reading this book!

Looking at How Drones Work

Most people rely heavily on technology today, but fortunately, few of us need to understand how it works. For example, you probably have a cellphone in your hand a lot of the time, but do you really know much about its inner workings?

As with most technology, you don't have to understand many of the technical details that operate under the hood of a drone in order to fly one. Unless you want to design and build drones, you probably don't particularly care about *how* it works, as long as it works.



TIP

It's a good idea, however, to know some of the basics because knowing how a drone flies can help you be a better pilot and make better piloting decisions in a variety of flight situations. Specifically, you should know how drones fly, how the remote controller works, and how the gimbal helps you take great photos and videos. Don't worry; I skip the boring technical stuff and just tell you what you need to know.

How drones fly

Although there are many different kinds of drones, some of which even work like airplanes, most drones are effectively *quadcopters*, which refers to a type of drone that uses four rotors. Basically, a drone has four different sets of propellers on each of its four arms. These four rotors provide all the maneuverability you get when you fly the drone.

To understand how these rotors work together, you need to get familiar with a few terms and what these mean for your drone's ability to fly.

Thrust and drag

Thrust is the force that is necessary for your drone to fly. In other words, the rotors have to spin fast enough to lift the drone's weight up into the air. While that's happening, the opposite force, called *drag*, is at work. *Drag* is created by friction in the air as well as air density. The drone must have enough force to overcome drag or it can't fly. This is why your drone will perform better or worse depending on how much drag exists from the air pressure and other atmospheric conditions.

Lift

Each of the four rotors has its own motor and set of propellers. The moving propellers push against the force of gravity, giving the drone *lift* to fly vertically off the ground. To ascend (fly up), the rotors spin faster. To descend, the rotors slow down. Both ascending and descending are functions of lift.

Torque

Torque is the rotational force that each rotor creates. You can think of it this way: The torque that is created moves the drone in a direction. However, in order to control the drone's movement, you need opposite forces that cancel the effect of torque. Because drones are quadcopters, each rotor has a diagonal opposite that spins in the other direction. This oppositional force cancels the torque so that the drone can hover in one position and fly in the direction you want, as shown in Figure 1-2.

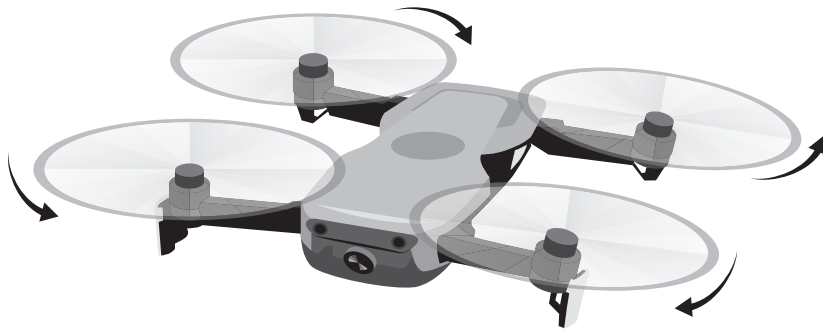
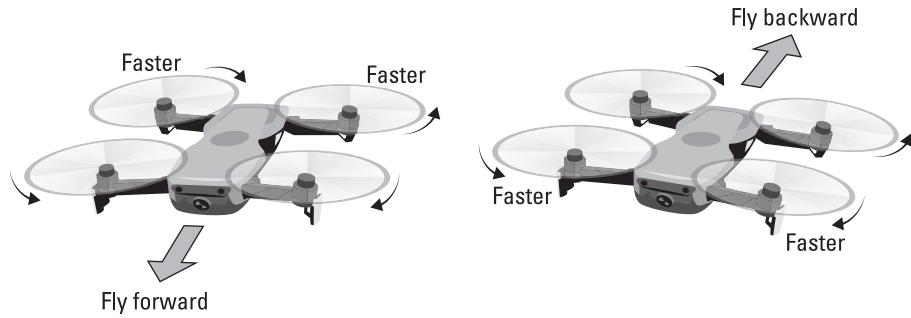


FIGURE 1-2:
Diagonal rotors
cancel out torque.

Pitch

Pitch refers to the drone's ability to move forward or backward. When you want to move forward, the drone's back propellers speed up, pitching the drone's nose down a bit so that the drone flies forward. To fly backward, the reverse happens: The front propellers speed up, pitching the tail downward, and the drone flies backward. Figure 1-3 depicts the pitch for flying forward and backward.

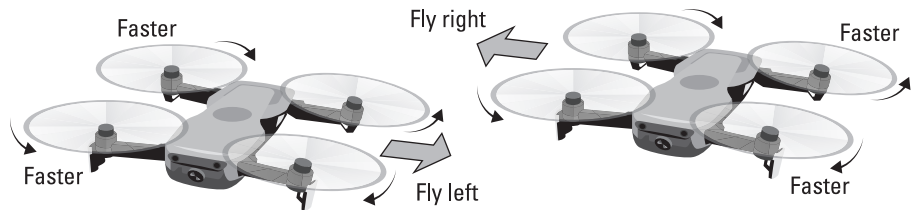
FIGURE 1-3:
Pitch forward
or backward.



Roll

Roll refers to the drone's capability to fly to the left or right. When you want to fly to the left, the right two propellers speed up, pushing the drone to the left. To fly rightward, the reverse happens: The left two propellers speed up, pushing the drone to the right. Figure 1-4 demonstrates flying to the left or right.

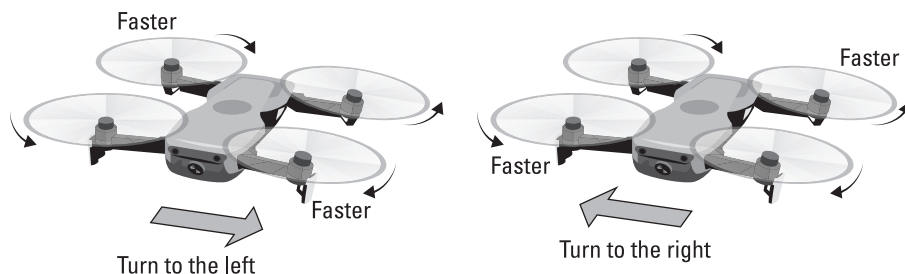
FIGURE 1-4:
Roll left or right.



Yaw

Yaw results from the use of torque to make the drone turn to the left or right. To invoke yaw, one of the diagonal sets of rotors slows down. To turn the other direction, the reverse happens. Yaw is easiest to understand with an image. Take a look at Figure 1-5.

FIGURE 1-5:
Turn right or left.



Using the remote controller (RC)

You control the movements described in the previous section — lift, pitch, roll, and yaw — by using the two joysticks on the remote controller (RC); see Figure 1-6. Although some drones allow you to reconfigure the joysticks, virtually all drone joysticks work the same way, as follows:

- » **The left joystick controls lift and yaw.** Using the left joystick, push up to make the drone ascend. Push down to make the drone descend. Push left to make the drone yaw (turn) to the left, and push right to make the drone yaw (turn) to the right.
- » **The right joystick controls pitch and roll.** Push the joystick up to pitch forward or down to pitch backward. Push the joystick left to roll (fly) left or right to roll (fly) right.



TIP

If you're just learning to fly, it's a good idea to practice just these basic movements until you get comfortable with the joysticks. It's not unusual to get yaw and roll confused, but the more you practice, the more quickly the joystick movements will become second nature.

Of course, you're not limited to one movement at a time. You can use both joysticks together and fly with a lot of versatility. Consider a couple of examples. Say you want to fly forward (pitch), but at the same time slowly rotate the drone to the left (yaw). If you're shooting video, this combination of movements will give you a slow, panoramic shot. To move using pitch and yaw, you use the right joystick to move forward and the left joystick to rotate to the left, as shown in Figure 1-7.

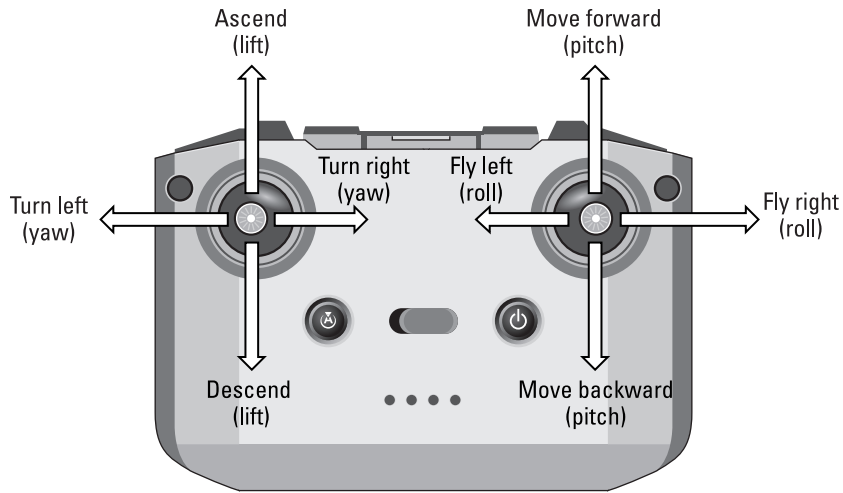


FIGURE 1-6:
Use the RC
joysticks to
manage lift, yaw,
pitch, and roll.

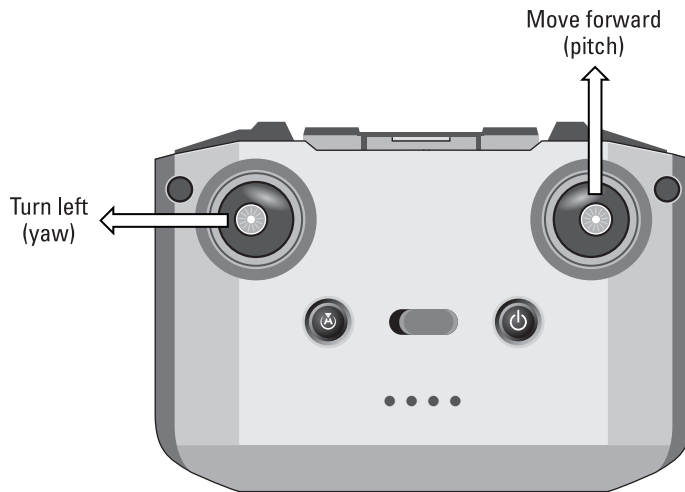
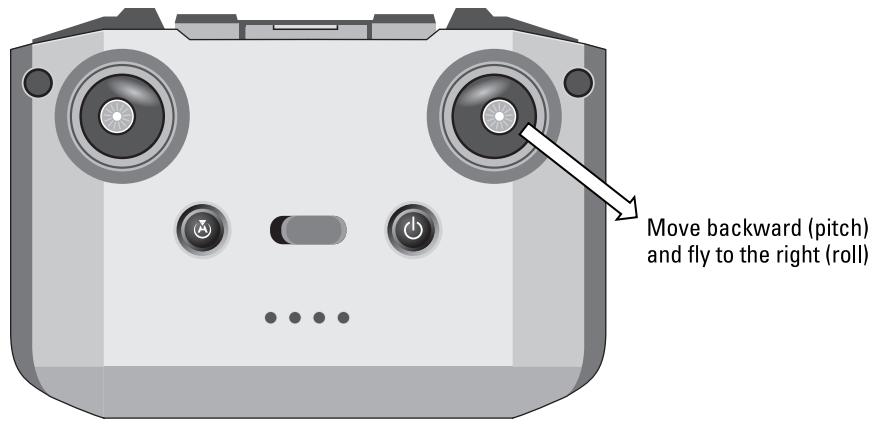


FIGURE 1-7:
Using pitch and
yaw at the
same time.

You can also use one joystick for a combination maneuver. Say you want to fly backward (pitch), but at the same time fly to the right (roll). In this case, you use the right joystick positioned between the down pitch and the right roll, as shown in Figure 1-8.

With the quadcopter and two joysticks, you can basically fly in any direction with any movement you want, which, when you think about it, is pretty amazing!

FIGURE 1-8:
Using a
combination of
pitch and roll.



TIP

Want some good flying practice? Check out Chapter 3 for some different exercises that will help you practice the basic skills detailed in this section.

Understanding camera gimbals

Here's a quick but important note about the drone's camera. A good drone with a good camera has that camera mounted on a gimbal. A *gimbal* is a device that lets the camera move and remain stable, independent of the drone's movements. In simple terms, the motors in the gimbal keep the camera stable but also allow you to rotate it using the drone's RC. Without a gimbal, the camera would be subjected to the drone's movements and vibrations. You want a drone with a good gimbal, or you shouldn't expect to capture images or video that aren't blurry or jerky.

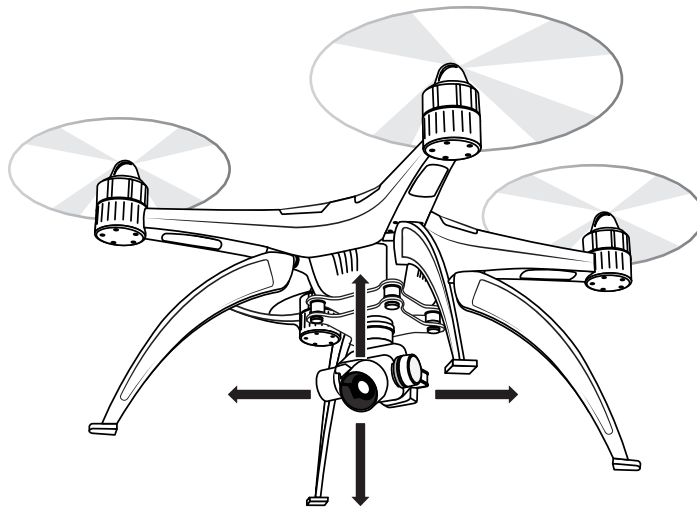
Gimbals are typically manufactured as two-axis or three-axis. Naturally, a three-axis gimbal does a better job because it moves on three axis points instead of two. A two-axis gimbal handles yaw and roll (turning and flying sideways), but it doesn't help you when you're flying forward and backward (pitch). A three-axis gimbal keeps your camera stable with all three. Now, that's a win!



TIP

If you're thinking about buying a new drone, don't forget the gimbal! Look for models that have a three-axis gimbal and you'll be much happier with your photos and videos. Figure 1-9 shows how the gimbal can move.

FIGURE 1-9:
A gimbal moves
to keep the
camera straight
and free of
vibration.



Shopping for a Drone

Shopping for a new drone can be overwhelming because you have so many to pick from with so many different features (and, of course, different price points). What drone do you really need, and how much money are you willing to spend? These great questions aren't always easy to answer. Choosing the right drone requires some thought and often a lot of reading and checking out reviews from other customers.

To make matters more confusing, you need to understand a big FAA rule before you shop at all. Read on.

Checking out the 250-gram weight maximum

If you're newer to the drone world and shopping around for a drone, you'll see drone ads that say things like "Under 250-grams!" or "Fully FAA compliant!" These ads speak to the FAA rule I mentioned previously.



REMEMBER

The FAA has determined that all drones weighing over 250 grams must be registered with the FAA. Registering is not that big of a deal; one part of it involves filling out an online form at <https://faadronezone-access.faa.gov/#/>, paying five dollars, and affixing a registration number to your drone. You also need to complete both your personal registration and the TRUST certification (see

Chapter 5 for details). With those requirements in mind, many drone manufacturers build small drones that weigh under 250 grams so that you can avoid registration.

Also, drones must have a remote ID, which is like a digital license plate, either installed or added to it. Most newer drones have a remote ID already built in, so an ad touting “FAA compliant” typically means that the remote ID is ready to go or the drone weighs under 250 grams (or both are true). Check the fine print, of course. Also, see Chapter 6 for more information about remote ID.



REMEMBER

The registration information presented here is for the United States. If you fly in another country, you need to check out the rules and procedures for that country. Fortunately, drone piloting rules tend to be very similar everywhere.



REMEMBER

Note that you can’t use any drone for any kind of commercial purpose, whether you’re paid or not, without a Part 107 license. You can find out all the details about Part 107 certification in Chapter 5.

Exploring drone categories

If you’re drone shopping, it’s helpful to think about categories of drones as you would different categories of automobiles. Drone categories differ in the drone’s price points, features, and the purposes the drones serve.

In an attempt to help you make sense of the shocking number of drones for sale, I’ve sorted them into categories and included a few examples. Note that the categories are just a mental way to organize the drones, and there’s cross-over between them, but hopefully the following sections can help you get a sense of what’s out there. I also note some brands and a few models as examples of a drone category — not necessarily as recommendations.

Toy drones

Toy drones are basically just that: flying toys. They’re small and easy to use, and most of them have software to download to your phone and use with the drone’s RC. Typical pricing may range from \$30 to \$100. The Radclo drone pictured in Figure 1-10 is a good example. I paid \$50 for this drone; it flies and it has a 1080p camera so that you can take some photos and videos with it.

However, don’t expect much from drones in this category. (Considering that they’re the cost a dinner out for two, you probably shouldn’t.) One of the big complaints about toy drones is that they are difficult to control. They weigh so little that they can’t handle any wind and tend to drift around while hovering because of poor calibration and stabilization. Also, they lack gimbals, so the photos and

video you take are often blurry. These drones typically have no automated features, GPS, or safety sensors.



What I dislike about toy drones is that they're frustrating to fly and use, so someone's likely negative experience of this toy as their first drone may give up on drone piloting before they ever get started. That said, they are cheap, and they do fly; you just need to manage your expectations with drones in the toy category.



FIGURE 1-10:
The Radclo drone.

Photo: Curt Simmons

Consumer drones

Drones in the consumer space are a big step up from toy drones. They're small, with most weighing less than 250 grams, but they're larger and provide more features than most toy drones. Drones in the consumer category typically run from a couple hundred bucks to around \$600.

Common drones in this category are the Holy Stone HS600, the DJI Mini series, the Ruko F11 series, the BWINE F7 series, and the Protensic Atom. What you get in this category varies by the drone.

The Holy Stone HS600, shown in Figure 1-11, is a good example of a mid-priced consumer drone. It provides a 4K camera with a two-axis gimbal and offers good wind resistance. The drone also uses GPS and can return to the home point automatically (see Chapter 2 for more information about this feature). It's easy to fly and gets good reviews.



Drones in the consumer category typically lack sensors and other advanced flight features. However, many of them are remote ID-compliant (an FAA requirement — see Chapter 6 for details). You may find the software and remote control features lacking with drones in this category, but they do work well and generally have decent cameras. Not bad, considering the price!



FIGURE 1-11:
The Holy
Stone HS600.

Photo courtesy of Holy Stone

Prosumer drones

The category of prosumer drones is a bit difficult to define. Some higher-end consumer drones may be considered prosumer, whereas some high-end prosumer drones start to slide into the professional category (covered in the next section). Prosumer drones generally seem to range in price from \$700 to around \$1,300 and are used by hobbyists just for fun, but they also serve ably for real estate photography, roof inspections, and more simple professional activities.

Drones in this category often fall just under the 250-gram weight limit; most are remote ID compliant and they have numerous features. Pricing can depend on what accessories you want to buy to go with the drone, including the number of batteries and the type of remote controller. (Some of these drones have built-in screens, so you don't have to use your phone, which is nice).

In the prosumer and professional market, DJI is the leader. In fact, DJI drones make up about 70 percent of all drones sold in these categories, and for good reason. They're just really good drones with good camera systems. The DJI Mini 3 / 4 are very popular drones in the prosumer category. Of course, competition is always good, so in the prosumer category, you'll find drones such as the DJI 3 / 4 series and the DJI Air series. Autel Robotics also competes in the prosumer category with

the Evo Lite and Evo Nano drones. EXO Drones also competes in this space with the Blackhawk 3 (pictured in Figure 1-12).

Most drones in this category have the same basic features, such as 4K cameras with good sensors (which equals very good photos and videos), decent flight time, GPS, return-to-home features, automated flight modes, three-axis gimbals, and three-way collision avoidance sensors.

So how do you choose? I provide some guidance in the “Shopping Tips to Keep in Mind” section, later in this chapter.



FIGURE 1-12:
EXO Blackhawk 3.

Photo courtesy of EXO Drones

Professional drones

Professional-level drones are just that — drones people tend to use for professional purposes, professional-level photography and videography, and superior flight performance. These drones often cost several thousand dollars and can even soar upward of \$10,000, depending on what you want and need for your profession.

DJI’s flagship professional drone is the Mavic 3 Pro (pictured in Figure 1-13). I fly this drone as well as the DJI RC Pro (the professional remote controller), and both are fantastic. The Mavic 3 has plenty of features, flies great, and contains a Hasselblad triple camera system for amazing photography work.

Also in the professional category are drones from Parrot ANAFI as well as higher-end models from Autel Robotics, such as the Evo 2 Pro.

As you continue to climb the price ladder in this category, you might consider the DJI Inspire and the Autel Evo Max. These models are expensive, and at this point, you start moving into industry-specific drones.

TIPS FOR SIFTING THROUGH REVIEWS

If you're like me, you use online reviews to help you make purchases. However, reading through reviews can make you feel like you're sinking to the bottom of the ocean, and AI-generated reviews (which compile what a bunch of individual reviews said), often don't give you much detail to work with.

Here are a few tips. First, ignore the five-star reviews. I'm not saying they're not valid, but glowing reviews really don't help you decide. If the drone is great, then that's great, but what you really need to know are the negatives.

Second, look for themes. If one review says, "The propellers flew off and I crashed" but no one else says that, ignore it. Sometimes bad reviews happen because of a faulty drone, but sometimes they happen because of user error. Instead, look for themes. If numerous people say things like, "The drone loses connectivity with the controller," or "Tech support doesn't respond," those are warning signs because several people are having the same experience.

Finally, YouTube reviews can be good, but know that some YouTubers are given the product for free, which can make them biased, and sometimes they review products that they're already fans of. Also, some like to pick on aspects of a product that don't concern most people. So, again, if you use YouTube reviewers, watch several and look for common themes in what they say.



FIGURE 1-13:
The DJI Mavic 3
Pro drone.

Photo: Curt Simmons

Industry-specific drones

Industry-specific drones are designed for use in law enforcement, tunnel inspections, agriculture, and even the film industry. I show you a few models and include some details about them in Chapter 19.

Shopping tips to keep in mind

So with a review of some of the drones in different categories, you're likely closer to choosing a drone you want and need. To help you with that decision, here are few shopping tips to keep in mind:

- » **Pay attention to the camera and gimbal.** You want the best camera you can afford, and you'll be much happier with a three-axis gimbal. As you're shopping, pay close attention to those details first.
- » **Many drone companies use "flight time" as a selling point.** After all, longer flight times are good. However, I would basically ignore these advertising points. Although a particular drone may fly a bit longer than a competitor, your experience with flight time will vary wildly based on wind conditions, temperature, whether the air is dense or thin, and so forth. A long flight time means flying in perfect conditions, so unless you live somewhere perfect, your flight time per battery will vary.
- » **Think about accessories.** Sure, you need to focus on the drone, but as you're counting your hard-earned dollars, keep in mind that you may want an upgraded remote control and you probably want multiple batteries as well. As you shop, keep the accessories and extras you'll want or need in mind because these do drive up the cost.
- » **Spend what you can within reason.** A \$900 drone is going to be much better than a \$100 dollar drone. You tend to get what you pay for, so spend what you can and get the best drone you can.
- » **Check reviews about the drone company's tech support.** If you see numerous negative reviews about poor or nonresponsive tech support, I would move on.
- » **Finally, always keep in mind your goals.** Why are you buying a drone and how do you plan to use it? A firm understanding of your plans for the drone will help you make the best decision about which drone is right for you.

Considering Warranties and Insurance

Shopping for a drone is always exciting, and thinking about flying that new drone is even more thrilling. No one really enjoys thinking about warranties and insurance (at least until you crash into the lake), so this section offers a brief look at what you need to consider. (And don't skip this section!)

Basic and extended warranties

Most drones come with an included, basic warranty, such as a 90-day warranty. Basic warranties cover you for mechanical failure or a problem with the drone or controller. They don't cover damage from user mistakes.



TIP

Sometimes the manufacturer offers an extended warranty, which gives you the same protection for a longer period of time. However, such warranties don't cover damage from a crash (or if you drop it on the driveway). A drone is basically a flying camera, and accidents happen. Seriously consider other insurance plans. Read on.

Third-party plans

Typically, you can buy a warranty plan from a third party. For example, if you buy a drone from Amazon.com, you see an option to add a warranty from another company, such as Asurion or Allstate. Some of these options do include coverage for "drops, spills, cracked screens" and so forth, so they can be worthwhile. However, read the fine print carefully and know exactly what the insurance will cover and whether they have a deductible.



TIP

Some stores also offer their own warranty plans. For example, Best Buy's Total Tech covers everything you buy for an annual fee. These plans can be very helpful, but again, make sure that you know what you're getting and exactly what they'll cover.

Replacement plans

Many drone companies offer a replacement plan (often called a "Care" plan) that covers your drone in the event of a crash or what's called a *flyaway*. That's when something goes wrong with the drone software or hardware, you lose RC control, and the drone flies away into never, never land. The plan covers the cost of repairing the drone, or, if you need a replacement, you'll get one at a greatly reduced cost. Plans like this aren't cheap, and the cost is typically based on the cost of the

drone, but they are good. It's always hard to throw a few extra hundred dollars in the mix when you're buying a drone, but I suggest you carefully consider purchasing a replacement plan. Maybe you won't need it, but if you do, well . . . then you do!

As with all plans, make sure you know what you're getting for your money.

Additional insurance

You may also be able to purchase additional insurance from larger companies such as State Farm, Allstate, Geico, and others. You can sometimes add your drone as a part of your homeowner's policy. However, this option varies a lot from state to state, and if the drone is covered under your homeowner's policy, it's probably still subject to the deductible (which may not really help you in that case). Also, some companies won't cover the drone if you take it out of the country, such as on a vacation.

The place to start when considering additional insurance is with your insurance agent. They should be able to answer these questions, or at least find out. That's their job, so don't hesitate to bug them about drone insurance options that may be available to you.